

was less iritis after this operation. In regard to the pupil, it is proper to say that with a small iridectomy as round and as perfectly movable a pupil as any I have ever seen, can be obtained.

## A MODIFIED LORING OPHTHALMOSCOPE, WITH A DISK OF CYLINDRICAL-LENSES.

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THE instrument here presented was designed by the writer in most of its essentials six years ago; but has only recently been actually constructed, after closer study had shown more certain grounds for its claims to meet some hitherto unsatisfied requirements. The later ophthalmoscope of Dr. Loring (Trans. Am. Ophth. Soc., Vol. II., p. 489, 1878) has been the type kept in view, and the deviations from it have been made as slight as possible. The lenses are placed as in the instrument of Dr. Noyes, and differ from them only in slightly increased diameter and smaller number. They are  $+1, 2, 3, 4, 5$ , and  $-1, 2, 3, 4, 5$ , and 6. D. spherical in the main disk; while the supplemental disk contains concave and convex 0.5 and 13. D. on each side of its zero opening. The main disk is rotated, as in the Loring ophthalmoscope, by the finger pressed upon its milled edge; the secondary disk or quadrant, by means of a cogwheel 18 mm. in diameter, below it. This cog is provided with a spring-stop to centre at the sight-hole the lenses which it controls. The instrument is figured in its simpler form (Fig. 1) without the cylinder lenses, the dotted lines showing the slight change required to adapt it to this addition. The adjustment of this disk of cylinders has been already described (Med. News, Oct. 17, 1885, p. 442); and is sufficiently well shown in Fig. 2 to need no explanation, further than to note that the series of *concave* cylinders can be placed with their axes in any desired position (*e.g.* vertical as shown by the dotted lines), and give any sphero-cylindrical combination or its equivalent.

The figures marking the lenses, as they are generally placed, are concealed by the addition of this disk, and they have accordingly been transferred to a position nearer the handle, where they will always be visible.

FIG. I.

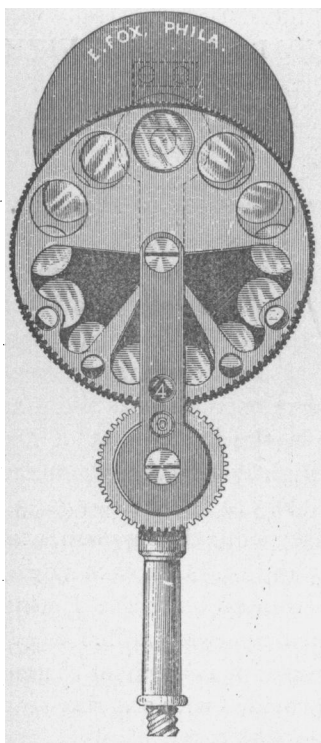
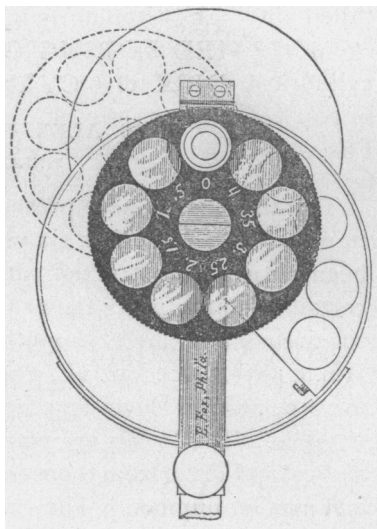


FIG. II.



The maximum thickness, when the disk of cylindricals is added to the instrument, is 10 mm., and the weight<sup>1</sup> 47.4 gm., as compared to 7.75 mm. and 45.2 gm. of the Loring; without the cylinders it is practically identical with the latter in thickness, weight and balance—a point worth emphasizing. The simple change of the lower journal of the tilting mirror into a spring clip, makes it a matter of but an instant to remove the

<sup>1</sup> Superfluous metal is removed from both disks by boring openings not shown in the cut.

usual concave-mirror and substitute a plane, or weak-light mirror when desired.

The advantages afforded by the new arrangement (at cost of but moderate increase in complexity) are the ready availability of the lenses of the supplemental disk or quadrant and their self-centering, so that any lens or combination can be called into use without removing the instrument from the eye; and the addition in practicable form of a full series of cylindrical lenses for ophthalmoscopic work.<sup>1</sup> The increase in cost is not great, and the instrument (as constructed by E. Fox, of 17th and Chestnut Sts., Philadelphia) has proven satisfactory in practice.

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## ADVANCEMENT OF TENON'S CAPSULE IN STRABISMUS.

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WHEN at our meeting of last year Dr. Holt advocated the correction of higher degrees of convergent squint by a tenotomy of the contracted muscle and a simultaneous advancement of its antagonist, I opposed this plan, because I was—and still am—convinced that the highest degrees of convergence can be corrected by one tenotomy on each internal rectus, and further, because I considered advancement not quite a safe operation in all cases. Visiting the ophthalmic clinics of Berlin and Paris last winter, I was surprised to find that with Schweigger, Hirschberg, Landolt and others, this plan was a subject of ordinary practice. They claim for it that the correction obtainable by it is as certain as with one or two simple tenotomies; moreover, that protrusion of the eyeball and secondary divergence are less likely to occur. Taking further into consideration how pleasant it is to remove

<sup>1</sup> As has been before shown, the disk of cylindrical lenses can easily be added to the Loring and other instruments, the only disadvantage being the concealing of the figures marking the lens at the sight-hole.